

E-20-J41  
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## Undergraduate Research Assistants (URA) Program Evaluation

URA Student Name: Kevin Ocallahan  
Institution: Georgia Institute of Technology  
Faculty Advisor Name: Dr. Reginald DesRoches  
MAE Center Project: DS 7B Damage Functionality Relationships  
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**Question 1: Has the URA experience influenced your future advanced study plans?**

☒ Yes | ☐ No

**Question 2: Will you continue with graduate school?**

☒ Yes | ☐ No | ☐ Have not decided

**Question 3: Did you participate in any Center activities?**

<input type="checkbox"/> Annual Meeting	<input type="checkbox"/> Research Experience for Undergraduates (REU) Symposium	<input type="checkbox"/> Site Review
<input type="checkbox"/> Student Leadership Council (SLC) activities	<input type="checkbox"/> New Student Orientation	<input type="checkbox"/> Other

**Question 4: Did you interact/collaborate with other Center projects?**

☐ Yes | ☒ No

**Question 5: How did the research experience compare with your expectations?**

Overall, the experience met my expectations. The benefits of the experience were in direct proportion to the effort expended through work. I was looking for an introduction to the research process and some exposure to the type of work performed at my school. I think I was able to experience both of these. If I have a regret, it is that I did not put forth a more sustained effort, rather I worked in concentrated but sporadic increments. A more consistent effort would have resulted in a more rewarding experience for me and a may have yielded more extensive results for the project on which I worked.

#### Question 6: What did you accomplish?

The specific task I performed was a comparison of the run times of the modal analyses of both a simplified and complex model of a multi-span simply supported highway bridge. This involved taking an existing model that accounted for the different components and characteristics of the bridge in a comprehensive manner and simplifying the model so that it used far fewer components while still accurately representing the behavior of the bridge. These models were then analyzed using a structural modeling program and timed to determine the time saving advantage of using the simplified model. It was determined that the simplified model did yield a significant time saving. This result probably merits further investigation using differing degrees of complexity within the simplified model.

From a personal standpoint, this experience has increased my desire to go on to graduate school and continue doing research work.